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Rising Rates of Adolescent Depression in the United States: Challenges and Opportunities in the 2020s

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Major depressive disorder (MDD) is a major public health concern. Many cases of depression onset during adolescence or even earlier(1). Critically, adolescent- (or earlier) onset depression tends to follow a recurrent course and is associated with more negative outcomes relative to adult-onset depression, including impairment in a range of important psychosocial domains that can persist into adulthood. Daly(2) examined the prevalence of adolescent depression using the National Survey on Drug Use and Health (NSDUH) in the United States. A total of 167,783 adolescents aged 12 to 17 years were assessed annually using national surveys from 2009 to 2019. Rates of adolescent depression increased from 8.1% in 2009 to 15.8% in 2019, a relatively larger increase than reported in a previous examination in the NSDUH from 2005 to 2014(3). These findings are consistent with other recent cohort studies in the United States and the world in highlighting a potential adolescent mental health crisis. Adolescents have reported increasing stress, anxiety, depression, self-harm, and suicidality during the 2000s(4–6).

Descriptive research that leverages regular, cross-sectional assessments in large, nationally representative samples of adolescents, like the NSDUH and others (e.g., Monitoring the Future, Millennium Cohort Study), is well suited to examining secular trends over time. Knowledge gained from descriptive research is also informative for developing mechanistic hypotheses that predict which adolescents are most at risk for developing depression and propose explanatory causes and mechanisms. Daly(2)'s timely study provides descriptive information on rates of adolescent depression during the 2010s. It also raises important questions, namely *why* rates of adolescent depression are increasing and the potential influences of sex and race/ethnicity on adolescent depression. These critical questions must now be addressed—to promote adaptive adolescent development by identifying those adolescents at greatest risk for depression and to understand the individual difference and contextual factors that contribute to its development and the mechanisms by which this occurs.

Daly(2) found that rates of depression increased from 2009 to 2019 among both girls and boys, but the percentage change was larger for girls (12.0%) than boys (3.7%), so that the sex difference in adolescent depression increased over time. That the well-established sex difference for depression evident in adults first emerges in adolescence

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has been known for decades(7). However, although an extensive body of research has been conducted to understand this finding, and a number of potential explanations have been proposed (e.g., sex hormones, puberty, physiological stress response, personality, cognitive style, interpersonal orientation, stress exposure/susceptibility, physical/sexual abuse/violence, societal structural gender inequities(8)), we have yet to fully explain this sex difference or identify causal mechanisms. Notably, Daly(2) also found that rates of depression increased from 2009 to 2019 among adolescents in all racial/ethnic categories assessed, though the percentage change among adolescents who identified as Black (4.1%) was relatively smaller than that among adolescents who identified as White (7.5%), Hispanic (9.7%), or other race/ethnicity (9.2%). Moreover, the sex difference was observed in all racial/ethnic categories, as was the increase over time, though this increase was smaller among adolescent girls and boys who identified as Black. There is evidence of differences in rates of adolescent depression across racial/ethnic identities, though these findings are nuanced(9). Of note, adolescents who are racial/ethnic minorities are less likely to receive treatment for depression(10). An extensive, and growing, body of research has been conducted to try to understand racial/ethnic differences in adolescent depression and well-being more broadly, and a number of potential explanations have been proposed as increasing risk for or protecting against depression (e.g., historical trauma of slavery/colonization, ongoing societal structural racial inequities, systemic racism, discrimination, acculturation, ethnic-racial identity, religious support, community cohesion(9,11)), but we have yet to fully explain racial/ethnic group differences in adolescent depression or identify causal mechanisms. Notably, because mental health research has historically neglected racial/ethnic minority populations, most adolescent depression measures have not yet been subjected to rigorous tests of measurement invariance, meaning it is not clear at this point whether our measures are sensitive to cultural differences in depression expression and are accurately measuring depression among adolescents in different racial/ethnic groups.

Identifying those adolescents at greatest risk for developing depression is critical for promoting adaptive adolescent development, and Daly(2) highlights sex and race/ethnicity as potential indicators of risk. However, this is not to say that sex or race/ethnicity confer *causal* risk for depression. Instead, it is likely that sex and race/ethnicity index other individual difference and contextual mechanistic risk factors, and study designs able to get at causes and risk mechanisms are necessary to understand these processes(12). Daly(2) focused on secular trends in adolescent depression in the United States in the 2010s, the decade immediately following the “Great Recession” of 2007 to 2009. The 2020s are likely to prove even more challenging for adolescents and their families and communities. Adolescents in the United States, and the world more broadly, are now living through a once-in-a-century pandemic, the novel coronavirus (COVID-19), that has disproportionately affected racial/ethnic communities and highlighted and exacerbated socioeconomic and racial/ethnic health disparities(13,14) and increased prejudice, discrimination, and violence against Asian and other racial/ethnic groups(15). Adolescents are witness to and experience ongoing police violence within their communities and structural and systemic failures to redress rampant social inequities(16). Adolescent mental health has suffered, and there is growing evidence adolescent girls and those who identify as racial/ethnic minorities have been particularly affected during this period(17–19). It is not hyperbole to suggest that

we face an adolescent mental health crisis as we move into the 2020s. But with these challenges come opportunities to better understand individual difference and contextual factors that increase risk for and protect against adolescent depression, delineate the effects of depression on adolescent development and functioning, guide the most strategic and effective preventive-intervention efforts, and ultimately improve the lives of millions of adolescents. The coming decade will be critical—let's do what we can to protect and promote adolescent health.

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